

electroluminescent display may utilize non-organic phosphors that are both transparent and emissive (such as a tOLED), and addressed through transparent row and column drivers. Pixilated element panels on LCD panels are also available in significantly transparent or translucent designs that permit a person to see through the pixilated panels when not locally displaying an image.

[0068] If used, corresponding portions of touchscreen **16** and light valve **18e** have the capacity to be translucent or transparent in response to control signals from a processor included in the gaming machine. When portions (or all) of the screens for touchscreen **16**, display devices **18a** and **18b**, and light valve **18e** are transparent or translucent, a player can simultaneously see images displayed on the display screen **18a** (and/or **18b**)—as well as the images displayed on the interior display devices **18c**.

[0069] In another embodiment, the layered displays in a gaming machine include a design or commercially available unit from Pure Depth of Redwood City, Calif. The Pure Depth technology incorporates two or more LCD displays into a physical unit, where each LCD display is separately addressable to provide separate or coordinated images between the LCDs. Many Pure Depth display systems include a high-brightened backlight, a rear image panel, such an active matrix color LCD, a diffuser, a refractor, and a front image plane; these devices are arranged to form a stack. The LCDs in these units are stacked at set distances.

[0070] The layered display devices **18** may be used in a variety of manners to output games on a gaming machine. In some cases, data and images displayed on the display devices **18a** and **18c** are positioned such that the images do not overlap (that is, the images are not superimposed). In other instances, the images overlap. It should also be appreciated that the images displayed on the display screen can fade-in fade out, pulsate, move between screens, and perform other inter-screen graphics to create additional affects, if desired.

[0071] In another embodiment, layered display devices **18** provide 3D effects. A gaming machine may use a combination of virtual 3D graphics on any one of the display devices—in addition to 3D graphics obtained using the different depths of the layered display devices. Virtual 3D graphics on a single screen typically involve shading, highlighting and perspective techniques that selectively position graphics in an image to create the perception of depth. These virtual 3D image techniques cause the human eye to perceive depth in an image even though there is no real depth (the images are physically displayed on a single display screen, which is relatively thin). Also, the predetermined distance, D (between display screens for the layered display devices) facilitates the creation of 3D effects having a real depth between the layered display devices. 3D presentation of graphic components may then use a combination of: a) virtual 3D graphics techniques on one or more of the multiple screens; b) the depths between the layered display devices; and c) combinations thereof. The multiple display devices may each display their own graphics and images, or cooperate to provide coordinated visual output. Objects and graphics in a game may then appear on any one or multiple of the display devices, where reels and other graphics on the proximate screen(s) block the view objects on the distal screen(s), depending on the position of the viewer relative to the screens. This provides actual perspective between the graphics objects, which represents a real-life component of 3D visualization (and not just perspective virtually created on a single screen).

[0072] In yet another embodiment, the multiple display devices output video for different games or purposes. For example, the interior display device may output a reel game, while the intermediate display device outputs a bonus game or pay table associated with the interior display, while the exterior and foremost display device provides a progressive game or is reserved for player interaction and output with the touchscreen. Other combinations may be used.

[0073] Reel games output by the display devices may include any video game that portrays one or more reels. Typically, the gaming machines simulate ‘spinning’ of the video reels using motion graphics for the symbols on the reel strips and motion graphics for the mechanical components.

[0074] Controlling transparency of the outer one or two display devices also provides game presentation versatility on a single gaming machine. In one embodiment, an outer or intermediate display device acts as a light valve that controls whether the interior display device is visible, or what portions of the interior display device are visible. For example, window portions of the intermediate display device may be left transparent to permit viewing of a select number of video reels arranged behind the light valve.

[0075] In another embodiment, the outer display device completely blocks out the interior display device, where the outermost display device is now solely visible and used for game presentation. The gaming machine now resembles a conventional gaming machine that only includes a single LCD panel. The gaming machine may then respond to digital controls to switch between a reel game, a multi-layer/multi-display game, and a simple one-panel LCD game. Other uses of the layered displays are possible and contemplated.

[0076] Gaming machine **10** uses the layered display devices **18** to show visual information on the different screens that a player can simultaneously see. Additional sample game presentations and uses of the layered display devices will now be discussed.

[0077] In another example, the gaming machine generates a game image on an interior display device and a flashing translucent image on a proximate display device. The game could for example, be reels or one or more wheels, and a flashing image on the proximate display could be a translucent line that indicates the payline(s) on the reels. Since some games permit multiple paylines based on the person’s wager, this permits the game to show multiple paylines responsive to the person’s actions. Alternatively, the proximate display may show a symbol or message that provides a player with helpful information such as a hint for playing the game. Notably, each of these examples allows the person to play the game while viewing the flashing image without having to change his or her line of sight or having to independently find such information from another portion of the gaming machine.

[0078] In one embodiment, the gaming machine presents different game types on the layered display devices. For example, the interior and backmost display device may output a main game with reels while a proximate display device shows a bonus game or progressive game. The bonus game or progressive game may result from playing the main game. Again, this permits the player to play the game while viewing a flashing bonus image without having to change his or her line of sight or having to independently find such information from another portion of the gaming machine.

[0079] Visual information on each of the distal screens remains visible as long as there are transparent or semi-transparent portions on the proximate screens that permit a